

ABSTRACT

An apparatus for sealing a vacuum chamber mainly comprises a plurality of long cylinders for linearly moving first piston rods. The first piston rods connect with a frame elevator. The frame elevator has a second piston rod and guide stems parallel to the first piston rods. While the second piston rod moves parallel to the guide stems by means of the short stroke cylinder, a lever, a transmitting rod and a connecting rod are driven synchronously. The transmitting rod is pivoted with the middle of connecting rod. The direction-changing mechanisms are pivoted at the two ends of the connecting rods for horizontally moving a door to seal the vacuum chamber. The moving direction of the door pushed by direction-changing mechanisms is perpendicular to the moving direction of the second piston rods so that the apparatus has a super thin configuration.

in 1919 from the U.S. and Canada, and in 1920 from Australia.